

ABSTRACT OF THE DISCLOSURE

A titanium dioxide films synthesizing method includes the step of coating a titanium film on the surface of a homogenous (or heterogeneous) substrate, and the
5 step of using the titanium-coated substrate as anode in an electrolyte to synthesize an nano-structured titanium dioxide film with single anatase phase on the surface of the titanium film by employing electrochemical anodic oxidation at room temperature.